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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/710,696

07/29/2004

Kuo-Chung Yee

13184-US-PA

4695

31561 7590 03/16/2007  
JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE  
7 FLOOR-1, NO. 100  
ROOSEVELT ROAD, SECTION 2  
TAIPEI, 100  
TAIWAN

EXAMINER

MATTHEWS, COLLEEN ANN

ART UNIT

PAPER NUMBER

2811

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

03/16/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/710,696	<b>Applicant(s)</b> YEE ET AL.	
	<b>Examiner</b> Colleen A. Matthews	<b>Art Unit</b> 2811	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 25 December 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 17-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 17-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1-4 and 6-14 and 17-21** are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Pub. No. 2006/0030074 to Mund et al (Mund).
3. **Regarding claims 1, 10 and 11**, Mund discloses a photoelectric device grinding process comprising the steps of: providing a wafer (Fig 9 element 312) having a plurality of chip units, where the surface of each chip unit has at least a photoelectric device (element 318), providing an amount of glue (314) having a plurality of spacers (310) embedded therein; attaching a dielectric substrate (302) over the photoelectric device on the surface of the wafer through the glue, where the glue and the spacers are disposed between the dielectric substrate and the wafer such that the spacers maintain a constant gap (H') between the dielectric substrate and the wafer and grinding (paragraph 0111, lines 10) the surface of the dielectric substrate away from the wafer or the surface of the waver away from the dielectric substrate.

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4. **Regarding claims 2 and 12**, Mund discloses the photoelectric device grinding process where the photoelectric device comprises an image sensor (Figure 9 element 318, paragraph 0011, line 6).
5. **Regarding claims 3 and 13**, Mund discloses the photoelectric device grinding process where the photoelectric device comprises a micro-mechanical structure (paragraph 0021 and 0022).
6. **Regarding claims 4 and 14**, Mund discloses the photoelectric device grinding process where the micro-mechanical structure (Fig 9, element 318) protrudes from the surface of the wafer (312) by a height smaller than the gap (H') between the dielectric substrate (302) and the wafer (312).
7. **Regarding claims 6 and 17**, Mund discloses the photoelectric device grinding process where the spacers are silicon oxide (paragraph 0025 lines 1-3).
8. **Regarding claims 7 and 19**, Mund discloses the photoelectric device grinding process where the step of grinding the dielectric substrate or the wafer comprises mechanical grinding (paragraph 0111, lines 10).
9. **Regarding claims 8 and 20**, Mund discloses the photoelectric device grinding process where the dielectric substrate comprises a glass substrate or silicon substrate (element 302, glass; paragraph 0111 line 1).
10. **Regarding claims 9 and 21**, Mund discloses the photoelectric device grinding process where the glue (Figure 9 element 314), each chip unit (312) and the dielectric substrate (302) together form at least a sealed chamber (316) such that the photoelectric device (318) is enclosed within the sealed chamber.

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11. **Regarding claim 18**, Mund discloses the photoelectric device grinding process where the material constituting the glue is selected from the group of ultraviolet cured plastic and epoxy resin (epoxy; paragraph 0105 line 1).

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. **Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pub. No. 2006/0030074 to Mund et al (Mund) in view of U.S. Pub. No. 2004/0232104 to Kinoshita et al. (Kinoshita).

14. **Regarding claim 5**, Mund discloses the photoelectric device grinding process of claim 1 as above. Mund fails to disclose the glue comprising ultraviolet cured plastic. Kinoshita teaches using an ultraviolet cured plastic as a glue (paragraph 0041 lines 7-8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Mund to have the glue comprising ultraviolet cured plastic as in Kinoshita in order to form the glue into a solid material within the device.

***Response to Arguments***

Applicant's arguments filed 12/25/2006 have been fully considered but they are not persuasive.

Applicant's argument that the glue 314 does not contain the spacer 310 in Mudd, Remarks page 5 lines 17-20. Examiner notes the claim language recites " providing an amount of glue having a plurality of spacers embedded therein" and the concept of "embedded therein" will be interpreted broadly in accordance with MPEP 2106, *USPTO personnel are to give claims their broadest reasonable interpretation in light of the supporting disclosure. In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Definitions of "embed" include "to surround closely" and the spacers 310 due surround closely the glue 314.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the dielectric substrate is ground **after** being disposed over the device on the wafer, Remarks, page 6 lines 3-4) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

### **Conclusion**

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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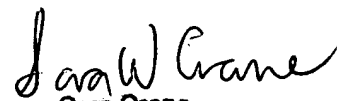
mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Colleen A. Matthews whose telephone number is 571-272-1667. The examiner can normally be reached on Monday - Friday 8AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Elms can be reached on 571-272-1869. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CAM

  
Sara Crane  
Primary Examiner